

## ABSTRACT OF THE DISCLOSURE

Feature quantities of a transmitted picture and a received picture are extracted from a first and second block-by-block feature quantity extraction parts which are provided on a transmitting and receiving sides, respectively. The extracted feature quantities are transmitted to a block degradation calculation part which compares the transmitted feature quantities and finds the degree of picture quality degradation for each block. Next, a median filter replaces the degree of picture quality degradation for the each block with a median of the degrees of picture quality degradation among the neighboring blocks of the each block. Then, a degraded block detection part compares the median with a predetermined threshold and detects a degraded block. Finally, a degraded region detection part removes an isolated degraded block and detects a degraded region. According to the invention, local picture quality degradation in a frame caused by transmission failure can be automatically detected with high accuracy.

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